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OIL, GAS, AND MINING BOARD

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September 15, 1977

Mr. Eric Newman, President
Minerals Recovery Corporation
575 Union Blvd., Ste. 304
Lakewood, CO. 80228

Re: South Lisbon Mine
San Juan County, Utah
ACT/037/018

Dear Mr. Newman:

Thank you for your letter of September 9th 1977, I apologize for not responding sooner. We have reviewed the file for the South Lisbon Mine and have the following comments.

MR FORM 1

12. We have the State Lease Number, but would like to be informed as to the nature of the arrangement between Minerals Recovery and the other two (2) mineral owners. We assume this to be by unpatented claim leases.

MR FORM 2

4. Enter: Greasewood, Big Sagebrush, Cheatgrass, Indian Ricegrass
- 4a. Enter: 10-20% Total
5. Send a representative soil sample to the University of Utah Soils Laboratory or other similar facility for a basic nutrient test. We suggest that you send a sample of the fine material that comprises the natural soil, label as, sample #1, MRC, also send a sample of the mine waste or other ground, virgin rock, label as, sample #2, MRC. The cost at USU is \$4.00 per sample.

Grading & Regrading -

- a. We would like to see you address the safety considerations of your pit walls. If, at all possible, you should attempt to place some mine waste against the vertical walls to decrease the height. Perhaps this will be impractical for some of the walls during peak mining activity, but might be possible as mining winds down or after it ceases. If you cannot do this at all, you can suggest other measures,

such as safety berms, etc, in addition to fencing and posting warning signs.

- b. You should mention why you will not spread soil. We don't think you need to because the ground, weathered rock is probably not much more infertile than the soil.
- c. Mention possible fertilization per the soil lab recommendations.
- d. You have already mentioned your drainage ditch around the highwalls.
- e. This will be the x-section slopes for your pit area.

Testing -

1. The first line addresses the mechanical stability and should be answered utilizing your mine experiences. The second line should be a statement of your soil test intentions.
2. Possible fertilization.
3. Grading, scarifying, tracking, as needed.

Revegetation -

1. (X) Operator (X) Broadcast & Drag
2. You could answer this to the negative if you wish.
3. Enter: Russian Wildrye.....3 lb/acre
 Crested Wheatgrass.....4 " "
 Intermediate Wheatgrass.....4 " "
 Four-wing Saltbrush.....1 " "
 Yellow Sweet Clover.....1 " "
 Indian Ricegrass.....1 " "

These species should be planted on all locations, all aspects, in the fall.

4. (X) Yes, Will vegetation protection be needed? No
5. (X) No
6. Reseeding until vegetation is established.

The above changes and additions are recommended. If you have any problems with these recommendations, let us know and we will meet with you or the mine personnel for a field meeting. Again, my apologies for the delay.

Sincerely,

BRIAN W. BUCK
ENGINEERING GEOLOGIST

SOIL TESTING LABORATORY

Utah State University UMC 48

Logan, Utah 84322

Date: _____

Your mailing address:

Name _____

Street or RFD _____

City _____ State _____ Zip _____

Location of land: County _____

Nearest town _____

Direction and miles from town _____

Source of water: Well ☐

Name stream or canal _____

Irrigation method: Sprinkle ☐
Furrow ☐ none
Flood ☐

Special problems:

Vegetation is to be established on disturbed ground, no soil horizon

☐ Dry Farm

☒ Range Land

☐ Irrigated Farm

☐ Garden

☐ Lawn

☐ Water ample

☐ Water limited

Send extra copy of results to:

BRIAN BUCK
DIV. of OIL, GAS, & Mining
1588 W. NORTH TEMPLE
SLC, UT 84116

CROP TO BE GROWN 19____				
Sample No.	Sample Depth	Acres	Crop	Yield Goal*
			Manure to be Applied tons/A	

Next Crop 19____

CROP AND FERTILIZER HISTORY (2 Years)					
CROP LAST GROWN 19____					Was Stubble removed?
Crop	Yield	Fertilizer Applied Amount/A	Kind		

Hay or Pasture Composition (Check one)

Alfalfa	All grass	Mixtures	
		1/3 Legume	2/3 Legume

*Use realistic yield goals for your conditions.

* (A, B, C, etc. See price list)

Basic Nutrients

* Crop is to revegetate mined land

Number of subsamples mixed together to form each sample listed above _____

Send samples prepaid by parcel post or express to the address above.

Send this Description Form and check payable to the Soil Testing Laboratory.

Payment enclosed \$_____

84.00/sample